

## REDUNDANT FLAT LAMP SYSTEM

### ABSTRACT OF THE DISCLOSURE

A flat lamp system is provided that facilitates improved reliability and performance in a display system. The flat lamp system provides improved reliability by forming multiple lamps in a single substrate. These multiple lamps provide redundancy and thus increase the reliability of system. Specifically, when one or more lamps in the system fails, the remaining lamps can be used to provide the luminance needed for the display. The multiple lamps are provided by forming multiple distinct channels in the substrate, and forming a cathode at each end of each channel. Each channel and its corresponding cathodes comprise a lamp that can be used to light the display.